

REMARKS/ARGUMENTS

Claims 1-36 are in the case. The applicants have studied the office action mailed February 2, 2007 and believe the application is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Claims 1-9, 11, 13-21, 23, 25-33, and 35 have been rejected as anticipated by the Maurer reference. Claims 10, 12, 22, 24, 34 and 36 have been rejected as obvious over the Maurer reference in view of the Hutchinson reference. These rejections are respectfully traversed.

For example, claim 1 is directed to a “backing up contents of a source device at a first client station as at least one object of a database stored in a data storage subsystem wherein the at least one object represents an image of the contents of the source device; using the database, tracking attributes and location of the at least one object in the database; restoring the contents of the source device from the at least one object to a target file in a file system stored on a storage device so that the target file contains said contents of the source device, said file system comprising a plurality of files and an address table identifying the location of each file on said storage device; and copying the restored contents of the source device from the target file to a target device so that the target device contains the contents of the source device.”

It is the Examiner’s position that the Maurer reference teaches “backing up contents of a source device at a first client station as at least one object of a database stored in a data storage subsystem wherein the at least one object represents an image of the contents of the source device” citing paragraphs 0058, 0060-0061 of the Maurer reference. The applicants respectfully disagree.

Although the Maurer reference mention a database, it is respectfully submitted that the cited paragraphs merely identify the *type* of data on the volumes being backed up by the system of the Maurer reference:

The invention is particularly useful when data on the standard volumes and BCV’s represents data related to an application 208a and/or application 208b, and in particular the invention is particularly useful if the application is a database, such as an Oracle database available from Oracle Corporation of Redwood, Calif. [0076] Maurer reference.

It is believed that the data stored on the standard volumes and the BCV's of the Maurer reference are stored in files. Thus, in a backup operation of the Maurer reference, it is believed that a file is copied from the standard volume and stored as a file on the BCV. The Examiner has cited no portion of the Maurer reference which in any manner indicates that during a backup operation, the contents of the standard volume is backed up as *an object in a database* as required by claim 1.

Claim 1 has been amended to clarify this distinction. For example, claim 1 explicitly requires "using the database, tracking attributes and location of the at least one object in the database". The Examiner has cited no portion of the Maurer reference which in any manner teaches or suggests using a database to track attributes and location of an object in the database wherein the database object represents an image of the contents of the standard volume of the Maurer reference.

Claim 1 further requires "restoring the contents of the source device from the at least one [database] object to a target file in a file system stored on a storage device so that the target file contains said contents of the source device." It is the Examiner's position that the "redo log" of the Maurer reference meets the recited target file citing paragraphs 0109 and 0110 of the Maurer reference. The applicants respectfully disagree.

Again, it is respectfully submitted that the cited "redo log" is discussed in the Maurer reference merely as an example of the type of data which can be copied from the standard volume and stored as a file on the BCV. The Examiner has cited no portion of the Maurer reference which teaches or suggests restoring contents *from a database object* to the redo file.

Furthermore, it is clear that the cited "redo log" does not contain the "contents of the source device" which has been restored "from the at least one [database] object" as required by claim 1. Indeed, the Examiner concedes that volumes being restored do not come from the "redo log." Instead, the Examiner concedes that restoring a source standard volume is from either "the BCV's [business continuation volumes] on the target or tape." The Examiner has cited no teaching or suggestion that the redo log file contains the "contents of the source device" which has been restored "from the at least one [database] object" as required by claim 1.

The deficiencies of the Examiner's citations to the Maurer reference are not met by the Examiner's citations to the Hutchinson reference.

Independent claims 13 and 25 may be distinguished in a similar fashion. The rejection of the dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend provide still further grounds of patentability over the cited art.

For example, dependent claim 11 further requires: "... wherein said target file is a flat file." It is the Examiner's position that the Maurer reference teaches "wherein said target file is a flat file" citing paragraph 0074 of the Maurer reference. The applicants respectfully disagree.

It is respectfully submitted that the cited paragraph discusses creating a map of the logical configuration of the physical devices on the source computer system in the form of a flat file:

[0074] The method further includes discovering logical information related to the Standard volumes that are part of the volume group on the source computer system 113a. A map of the logical information to physical devices on the source computer system is created, preferably in the form of a flat file that may be converted into a tree structure for fast verification of the logical information. That map is used to build a substantially identical logical configuration on the target computer system 113b, preferably after the logical information has been verified by using a tree structure configuration of the logical information. Maurer reference, paragraph 74.

Table 2 of the Maurer reference provides an example of such mapping information. The Examiner has cited no portion of the Maurer reference which in any manner teaches or suggests that such a flat file contains the restored contents of a source device as required by claims 1 and 11. Instead, as noted above, the Examiner concedes that restoring a source standard volume is from either "the BCV's [business continuation volumes] on the target or tape." Still further, the Examiner has cited no portion of the Maurer reference which teaches or suggests restoring contents from a database object to the map flat file of the Maurer reference.

As explained in the present specification, the claimed method permits the contents of a source device to be restored from as few as a single file (see claims 3 and 4). By comparison, it appears that a restoration method in accordance with the Maurer reference, utilizes many separate files, including a "tree structure file" which maps the logical configuration of the computer system as described at paragraph 74 of the Maurer reference, together with the data files containing the actual backed up data itself stored in either "the BCV's [business

continuation volumes] on the target or tape” as described at paragraph 110 of the Maurer reference.

Moreover, a method in accordance with the present description can, in one embodiment, readily permit the restoration of the source device contents using an operating system command such as the Unix “dd” command, to copy the contents of the single file to the target device (see claim 12) to restore the contents of the source device. Such contents are not limited to any particular type of data or application. Furthermore, such a Unix command does not require operation of any application programs. By comparison, the “redo log” of the Maurer reference appears to be a part of the Oracle database and the database restore operation is performed by the Oracle database program using the redo log and the BCV’s on the target or tape. Maurer reference, paragraphs 106-111.

The Examiner has made various comments concerning the obviousness or anticipation of certain features of the present inventions. Applicants respectfully disagree. Applicants have addressed those comments directly hereinabove or the Examiner’s comments are deemed moot in view of the above response.

Although Applicants amended claims to overcome the unpatentable rejection, Applicants are not conceding in this application that the claims in their pre-amended form are invalid for being unpatentable, as the present claim amendments and cancellations are only for facilitating expeditious prosecution. Also it is respectfully submitted that the amendments are made to clarify recited features and do not narrow the scope of the claimed inventions. Applicants respectfully reserve the right to pursue these and other claims in this present application and one or more continuations and/or divisional patent applications.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-36 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 553-7970 if the Examiner believes such contact would advance the prosecution of the case.

Dated: June 1, 2007

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